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Case Report

An unusual case of late graft infection

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The incidence of vascular prosthetic graft infection is relatively uncommon (ranging from 2-5%),[1] but the management of this condition still poses a major challenge to vascular surgeons. The majority of graft infections are felt to be related to bacterial implantation at the time of original surgery. We report on a case of late graft infection with an unusual cause.

CASE REPORT A sixty-two-year old lady presented with a four month history of gradual onset of left iliac fossa (LIF) and groin pain associated with tiredness, poor appetite and weight loss. She had a history of aorto-bifemoral bypass grafting eight years previously for occlusive aortic disease. The patient was apyrexic but tender in the LIF with a fullness in the left groin. All peripheral pulses were present. Initial blood investigations revealed a normal white cell count with an ESR of 97 mm/hr. The right kidney was found to be hydronephrotic on ultrasound. CT scan demonstrated abnormal tissue and gas around the graft confirming infection. Arteriography confirmed graft patency.

At surgery, bilateral axillo-femoral bypass grafts were initially constructed. Laparotomy was then carried out. The appendix was found to be necrotic and adherent to the right pelvic wall. The peritoneum covering the graft on the lateral pelvic wall appeared intact, but further dissection revealed that the appendix was acutely inflamed and directly adherent to the right limb of the infected graft. Pus from the para-aortic area did not yield bacterial growth. The pathologist reported acute transmural inflammation of the appendix. The patient had an uneventful recovery after primary graft excision; she remains well two years later.

DISCUSSION

Graft infection may present early (within thirty days of surgery) or up to several years after implantation.[1] Transient bacteraemia may lead to graft infection, but occult seeding at the time of surgery is felt to be the more common mechanism. Factors associated with higher risk of infection include emergency surgery, re-operation, haematoma formation and the presence of distant infection. Coagulase negative staphylococcus aureus has emerged as the most commonly identified pathogen, but often no bacterial growth is identified,[2] even in the presence of overt pus. For aortic graft infection the associated mortality rate has been reported as high as 70% with an amputation rate of 11 to 57%.[3-5] Aggressive treatment is thus justified.

Graft infection in this particular case seems to have been caused by acute appendicitis. There have been no previous reports of such an event in the literature. The case is also unusual because of the prolonged time interval (eight years) between graft implantation and the development of infection.

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